REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 69-70 and 72-77 remain active in this case. Claims 69 and 70 having been amended by the present amendment, and Claims 1-68 and 71 having been previously canceled.

In the September 9, 2010 Office Action, Claims 69 and 70 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; Claims 69-70, 72-73 and 75-77 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kimura (U.S. Pat. App. Publ. No. 2002/0105279) in view of Tsuruoka et al. (U.S. Pat. No. 6,414,443, hereinafter "Tsuruoka") and in further view of Abe (U.S. Pat. App. Publ. No. 2004/0041750); and Claim 74 was rejected under 35 U.S.C. §103(a) as being unpatentable over Kimura in view of Tsuruoka and in further view of Abe and Kasai (U.S. Patent No. 6,989,826).

In response to the rejection of Applicant's Claims 69 and 70 under 35 U.5.C. § 112 first paragraph, as failing to comply with the written description requirement, Claim 69 is amended to recite that "the gradation voltage is supplied such that the sum of currents flowing through said self-luminescent elements is a predetermined current value." These features find non-limiting support in Applicant' disclosure as originally filed, for example in Applicant's published application 2007/0132674 in paragraphs [0443]-[044], and in Figure 78. In these passages, the following is explained:

> Now, description will be given of a method of creating and inputting a gray level reference current 700 to the digital/analog converting section 706. . . .As shown in FIG. 78, a gray level reference current generating section 704 generates a gray level reference current 700. On the basis of a reference current 781 that sets the quantity of current per gray level, the gray level reference current 700 corresponding to the bits of a video signal is output using a current mirror configuration or the like. Here, 8-bit output is used, and

> thus eight outputs of gray level reference currents 700 are present. Since it is necessary to precisely output a current characterized in that (current value of a gray level reference current n) x 2=(current value of a gray level reference current (n+1)), the output current is preferably varied on the basis of the number of transistors 782 [or 801] for mirroring.

(Applicant's specification, ¶¶ [0443]-[0444], portions omitted.) Moreover, independent Claim 70 is amended to recite that "the voltage [of the voltage generation section] is supplied to said driving transistors according to a temperature." These features find non-limiting support in Applicant's published application 2007/0132674 in paragraphs [0249] and [0584] and in Figure 176. Accordingly, it is believed that the rejections under 35 U.5.C. § 112 first paragraph of independent Claims 69-70, are overcome.

Moreover, Applicant's Claim 69 is further amended to clarify that the gate voltage of the driving transistor changes due to the changed gradation voltage supplied from the voltage generation section. Support for the clarification to Claim 69 is provided, for example, in paragraphs [0324], [0331] and [0332], and also Figs. 12(a) and 12(b). For example, paragraph [0324] explains the following:

> When the video signal and thus the current value of the current source 122 change, the current flowing through the driving transistor 62 and source signal line 60 also changes. On this occasion, the voltage across the source signal line changes depending on the current/voltage characteristic of the driving transistor 62. If the driving transistor 62 has the current/voltage characteristic shown in FIG. 12 (b), when for example, the value of a current from the current source 122 changes from I2 to I1, the voltage across the source signal line changes from V2 to V1. The change in voltage is caused by the current from the current source 122.

(Applicant's specification, ¶ [0324].) Independent Claim 70 is amended to recite an analogous feature. No new matter has been added.

In response to the rejection of Claims 69-70 under 35 U.S.C. § 103(a), Applicant respectfully requests reconsideration of this rejection and traverses the rejection, as discussed next.

Briefly summarizing, Applicant's independent Claim 69 is directed to a self-luminescent display apparatus. The apparatus includes a self-luminescent elements arranged in a pattern of a matrix; driving transistors, each of which controls a current supplied to each of said self-luminescent elements; pixel circuits provided in association with each of the self-luminescent elements and each of the driving transistors; and a voltage generation section to supply a gradation voltage, which is to correspond to a display grade, to the driving transistors. In addition, a gate voltage of each of the driving transistors changes due to the changed gradation voltage supplied from the voltage generation section, and the gradation voltage is supplied such that the sum of currents flowing through the self-luminescent elements is a predetermined current value.

Turning now to the applied reference, Kimura is directed to a light emitting device that can display different colors in a stable way, by controlling a change in luminance of an organic light emitting device (OLED) 105. (Kimura, Abstract, Figs. 1, 4.) Kimura's pixels 102 each have an OLED 105, a switching TFT 110, a driving TFT 111, and a capacitor 112. (Kimura, Fig. 1, col. 5, ll. 52-62.) A variable power supply 106 can control the OLED drive voltage in each pixel. (Kimura, col. 5, ll. 59-62.) Kimura explains that a reference value representing the amount of current that flows into a pixel portion is calculated from data of a video signal by a correction circuit 108, and then the pixel portion displays an image in accordance with the data of the video signal and the drive current at the time is measured for all OLEDs in then pixel portion. (Kimura, Abstract, ll. 5-7 Fig. 6, from col. 7, l. 65, to col. 8, l. 17.)

Furthermore, Kimura explains that a light emitting device which corrects voltage values supplied from a variable power supply 106 to the pixel portion 102. (Kimura, Fig. 1.) Specifically, the source/drain voltage, and not the gate voltage of the driving TFT 111 is changed by simply using an ammeter 107 to measure the current flowing into the OLED 105.

(Kimura, col. 8, ll. 3-23.) The voltage applied to the OLED 105 is determined by the current that flows into the OLED 105, and not by the power supply voltage from variable power supply 106. (Kimura, Fig. 4.) With a change of the voltage on the power supply lines Vi, the drain-source voltage of the driving TFT 111 will also change, as can be seen in the schematics of Figure 4. Kimura's system therefore suggests to adapt the drain-source voltage of TFT 111, by adapting the power supply voltage with variable power supply 106, so that a current that flows from the OLED 105 can be adjusted. (See e.g., Kimura, col. 9, ll. 30-51, "correction voltage," "deviation current.")

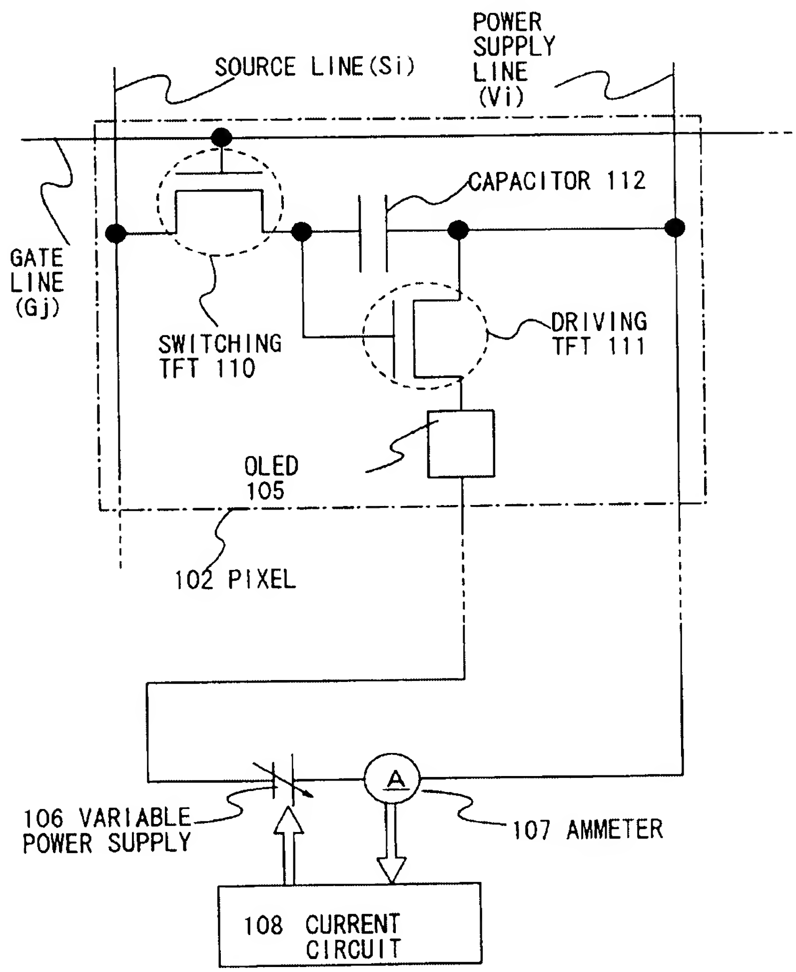

Figure 4 of U.S. Patent No. 6,710,548 to Kimura

Accordingly, the currents flowing through the OLEDs will be varied because of variations in the current/voltage characteristics of the driving TFT 111. (see Kimura, Fig. 4, from col. 5, l.

63, to col. 6, l. 16.) Moreover, Kimura explains with respect to his Figure 3 that "a change in voltage-current characteristic of an OLED [is shown] when the temperature of its organic light emitting layer is changed. With the voltage kept constant, the OLED drive current is increased as the temperature of the organic light emitting layer goes high." (Kimura, col. 2, ll. 59-65.) Therefore, it is respectively submitted that Kimura's light emitting device fails to provide a device that can provide for a uniform display that is unaffected by such variations in the characteristics of the driving transistors, because there are no means to change or control the gate voltage of drive transistor 111. Accordingly, Kimura fails to teach "a gate voltage of each of the driving transistors changes due to the changed gradation voltage supplied from the voltage generation section," as required by Applicant's independent Claim 69. In Kimura, the gate voltage of driving TFT 111 is stabilized by capacitor 112. (Kimura, col. 6, ll. 2-5, Fig. 4.)

The reference Tsuruoka, used by the pending Office Action to form the 35 U.S.C. 103(a) rejection, fails to remedy the deficiencies of Kimura, even if we assume that these references can be combined. Accordingly, Applicant respectfully traverses the rejection based on Kimura and Tsuruoka.

Applicants' independent Claim 70, although different in scope that independent Claim 69, include features that are analogous to the features of independent Claim 69 as argued above, that are not taught by the applied references. Accordingly, claim 70 is also patentable over the cited art for at least the same reasons as claim 69.

Consequently, in view of the present amendment and in light of the above comments, no further issues are believed to be outstanding, and the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, L.L.P.

N. Schibli

Eckhard H. Kuesters
Attorney of Record
Registration No. 28,870

Nikolaus P. Schibli, Ph.D.
Registered Patent Agent
Registration No. 56,994

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/09)